

From wang!elf.wang.com!ucsd.edu!info-hams-relay Mon Mar 25 17:17:05 1991 remote
from tosspot
Received: by tosspot (1.64/waf)
via UUCP; Tue, 26 Mar 91 17:15:59 EST
for lee
Received: from somewhere by elf.wang.com
id aa05581; Mon, 25 Mar 91 17:17:03 GMT
Received: from ucsd.edu by relay1.UU.NET with SMTP
(5.61/UUNET-shadow-mx) id AA20301; Mon, 25 Mar 91 10:01:21 -0500
Received: by ucsd.edu; id AA23257
sendmail 5.64/UCSD-2.1-sun
Mon, 25 Mar 91 04:30:25 -0800 for brian
Received: by ucsd.edu; id AA23251
sendmail 5.64/UCSD-2.1-sun
Mon, 25 Mar 91 04:30:21 -0800 for /usr/lib/sendmail -oc -odb -oQ/var/spool/
lqueue -oi -finfo-hams-relay info-hams-list
Message-Id: <9103251230.AA23251@ucsd.edu>
Date: Mon, 25 Mar 91 04:30:19 PST
From: Info-Hams Mailing List and Newsgroup <info-hams-relay@ucsd.edu>
Reply-To: Info-Hams@ucsd.edu
Subject: Info-Hams Digest V91 #237
To: Info-Hams@ucsd.edu

Info-Hams Digest Mon, 25 Mar 91 Volume 91 : Issue 237

Today's Topics:

AMSAT ORBITAL ELEMENTS

Any mods for Icom 27a or 27h 2 meter radio ?

Connector needed.

Has anybody out there ever fixed a microwave?

MAJOR GEOMAGNETIC STORM INFORMATION UPDATE #1 - 25 MARCH

Send Replies or notes for publication to: <Info-Hams@UCSD.Edu>

Send subscription requests to: <Info-Hams-REQUEST@UCSD.Edu>

Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Info-Hams Digest are available
(by FTP only) from UCSD.Edu in directory "mailarchives/info-hams".

We trust that readers are intelligent enough to realize that all text
herein consists of personal comments and does not represent the official
policies or positions of any party. Your mileage may vary. So there.

Date: 24 Mar 91 19:04:05 GMT

From: swrinde!zaphod.mps.ohio-state.edu!tut.cis.ohio-state.edu!n8emr!gws@ucsd.edu

Subject: AMSAT ORBITAL ELEMENTS

To: info-hams@ucsd.edu

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=====
|           Relayed from AMSAT BBS NETWORK           |
| N8EMR's Ham BBS, 614-895-2553 1200/2400/9600/V.32/PEP/MNP5 |
=====
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SB KEPS @ AMSAT \$ORBS-082.0
Orbital Elements 082.0OSCAR

HR AMSAT ORBITAL ELEMENTS FOR OSCAR SATELLITES
FROM N3FKV HEWITT, TX March 23, 1991
TO ALL RADIO AMATEURS BT

Satellite: AO-10
Catalog number: 14129
Epoch time: 91079.85001045
Element set: 641
Inclination: 25.7740 deg
RA of node: 154.7577 deg
Eccentricity: 0.6001788
Arg of perigee: 226.7218 deg
Mean anomaly: 64.5707 deg
Mean motion: 2.05882404 rev/day
Decay rate: -2.9e-07 rev/day^2
Epoch rev: 3043

Satellite: UO-11
Catalog number: 14781
Epoch time: 91080.56747138
Element set: 938
Inclination: 97.9105 deg
RA of node: 128.5928 deg
Eccentricity: 0.0013355
Arg of perigee: 86.0295 deg
Mean anomaly: 274.2504 deg
Mean motion: 14.66481916 rev/day
Decay rate: 4.074e-05 rev/day^2
Epoch rev: 37660

Satellite: RS-10/11
Catalog number: 18129
Epoch time: 91080.92254548
Element set: 560
Inclination: 82.9245 deg
RA of node: 123.3498 deg
Eccentricity: 0.0013445
Arg of perigee: 70.9300 deg

Mean anomaly: 289.3318 deg
Mean motion: 13.72161780 rev/day
Decay rate: 4.23e-06 rev/day^2
Epoch rev: 18762

Satellite: A0-13

Catalog number: 19216
Epoch time: 91065.03461838
Element set: 240
Inclination: 56.8208 deg
RA of node: 107.0310 deg
Eccentricity: 0.7134717
Arg of perigee: 248.7854 deg
Mean anomaly: 25.7533 deg
Mean motion: 2.09700788 rev/day
Decay rate: -2.0e-07 rev/day^2
Epoch rev: 2086

Satellite: F0-20

Catalog number: 20480
Epoch time: 91069.51316501
Element set: 189
Inclination: 99.0193 deg
RA of node: 70.4245 deg
Eccentricity: 0.0540988
Arg of perigee: 165.0177 deg
Mean anomaly: 196.7681 deg
Mean motion: 12.83171893 rev/day
Decay rate: 3.1e-07 rev/day^2
Epoch rev: 5090

Satellite: A0-21

Catalog number: 21087
Epoch time: 91080.15712736
Element set: 25
Inclination: 82.9436 deg
RA of node: 298.8691 deg
Eccentricity: 0.0035730
Arg of perigee: 142.0202 deg
Mean anomaly: 218.3483 deg
Mean motion: 13.74354520 rev/day
Decay rate: 2.23e-06 rev/day^2
Epoch rev: 693

Satellite: RS-12/13

Catalog number: 21089
Epoch time: 91079.71937259
Element set: 27

Inclination: 82.9296 deg
RA of node: 169.6785 deg
Eccentricity: 0.0029384
Arg of perigee: 162.4720 deg
Mean anomaly: 197.7462 deg
Mean motion: 13.73873182 rev/day
Decay rate: 2.55e-06 rev/day^2
Epoch rev: 599

/EX

SB KEPS @ AMSAT \$ORBS-082.D
Orbital Elements 082.MICROS

HR AMSAT ORBITAL ELEMENTS FOR THE MICROSATS
FROM N3FKV HEWITT, TX March 23, 1991
TO ALL RADIO AMATEURS BT

Satellite: UO-14
Catalog number: 20437
Epoch time: 91076.22312375
Element set: 315
Inclination: 98.6755 deg
RA of node: 156.2220 deg
Eccentricity: 0.0011872
Arg of perigee: 74.2200 deg
Mean anomaly: 286.0282 deg
Mean motion: 14.28968311 rev/day
Decay rate: 1.204e-05 rev/day^2
Epoch rev: 5985

Satellite: A0-16
Catalog number: 20439
Epoch time: 91079.69465718
Element set: 207
Inclination: 98.6775 deg
RA of node: 159.9469 deg
Eccentricity: 0.0012678
Arg of perigee: 66.7370 deg
Mean anomaly: 293.5149 deg
Mean motion: 14.29069849 rev/day
Decay rate: 1.189e-05 rev/day^2
Epoch rev: 6035

Satellite: D0-17
Catalog number: 20440
Epoch time: 91076.10931864
Element set: 207
Inclination: 98.6775 deg

RA of node: 156.4138 deg
Eccentricity: 0.0012859
Arg of perigee: 77.3705 deg
Mean anomaly: 282.8914 deg
Mean motion: 14.29131967 rev/day
Decay rate: 1.269e-05 rev/day^2
Epoch rev: 5984

Satellite: W0-18

Catalog number: 20441
Epoch time: 91079.23298956
Element set: 206
Inclination: 98.6746 deg
RA of node: 159.5666 deg
Eccentricity: 0.0013290
Arg of perigee: 69.9197 deg
Mean anomaly: 290.3421 deg
Mean motion: 14.29201795 rev/day
Decay rate: 1.192e-05 rev/day^2
Epoch rev: 6029

Satellite: L0-19

Catalog number: 20442
Epoch time: 91080.54226241
Element set: 208
Inclination: 98.6770 deg
RA of node: 160.9193 deg
Eccentricity: 0.0013617
Arg of perigee: 64.6497 deg
Mean anomaly: 295.6092 deg
Mean motion: 14.29280785 rev/day
Decay rate: 1.190e-05 rev/day^2
Epoch rev: 6048

/EX

SB KEPS @ AMSAT \$ORBS-082.W
Orbital Elements 082.WEATHER

HR AMSAT ORBITAL ELEMENTS FOR WEATHER SATELLITES
FROM N3FKV HEWITT, TX March 23, 1991
TO ALL RADIO AMATEURS BT

Satellite: NOAA-9

Catalog number: 15427
Epoch time: 91078.77320874
Element set: 714
Inclination: 99.1733 deg
RA of node: 90.1381 deg

Eccentricity: 0.0014572
Arg of perigee: 319.0243 deg
Mean anomaly: 40.9831 deg
Mean motion: 14.12889829 rev/day
Decay rate: 1.158e-05 rev/day^2
Epoch rev: 32289

Satellite: NOAA-10
Catalog number: 16969
Epoch time: 91080.86282119
Element set: 559
Inclination: 98.5717 deg
RA of node: 107.2613 deg
Eccentricity: 0.0013831
Arg of perigee: 177.1642 deg
Mean anomaly: 182.9618 deg
Mean motion: 14.23990851 rev/day
Decay rate: 1.514e-05 rev/day^2
Epoch rev: 23412

Satellite: MET-2/17
Catalog number: 18820
Epoch time: 91079.64751892
Element set: 463
Inclination: 82.5451 deg
RA of node: 130.6980 deg
Eccentricity: 0.0015117
Arg of perigee: 270.9102 deg
Mean anomaly: 89.0325 deg
Mean motion: 13.84457443 rev/day
Decay rate: 4.54e-06 rev/day^2
Epoch rev: 15843

Satellite: MET-3/2
Catalog number: 19336
Epoch time: 91079.51407238
Element set: 714
Inclination: 82.5407 deg
RA of node: 81.9375 deg
Eccentricity: 0.0017539
Arg of perigee: 348.1699 deg
Mean anomaly: 11.9013 deg
Mean motion: 13.16915477 rev/day
Decay rate: 4.9e-07 rev/day^2
Epoch rev: 12732

Satellite: NOAA-11
Catalog number: 19531

Epoch time: 91079.78009085
Element set: 470
Inclination: 99.0195 deg
RA of node: 33.9638 deg
Eccentricity: 0.0011135
Arg of perigee: 221.9738 deg
Mean anomaly: 138.0636 deg
Mean motion: 14.12003278 rev/day
Decay rate: 1.584e-05 rev/day²
Epoch rev: 12799

Satellite: MET-2/18
Catalog number: 19851
Epoch time: 91079.83653964
Element set: 415
Inclination: 82.5227 deg
RA of node: 8.0282 deg
Eccentricity: 0.0014161
Arg of perigee: 316.2938 deg
Mean anomaly: 43.7108 deg
Mean motion: 13.84086483 rev/day
Decay rate: 5.21e-06 rev/day²
Epoch rev: 10383

Satellite: MET-3/3
Catalog number: 20305
Epoch time: 91075.87769420
Element set: 326
Inclination: 82.5502 deg
RA of node: 25.6640 deg
Eccentricity: 0.0016711
Arg of perigee: 15.4525 deg
Mean anomaly: 344.7104 deg
Mean motion: 13.15942304 rev/day
Decay rate: 4.3e-07 rev/day²
Epoch rev: 6681

Satellite: MET-2/19
Catalog number: 20670
Epoch time: 91079.48890829
Element set: 161
Inclination: 82.5424 deg
RA of node: 69.3384 deg
Eccentricity: 0.0014406
Arg of perigee: 231.0261 deg
Mean anomaly: 128.9618 deg
Mean motion: 13.83924402 rev/day
Decay rate: 1.88e-06 rev/day²

Epoch rev: 3673

Satellite: FY-1/2

Catalog number: 20788

Epoch time: 91080.17189190

Element set: 108

Inclination: 98.9476 deg

RA of node: 115.4877 deg

Eccentricity: 0.0015985

Arg of perigee: 63.9031 deg

Mean anomaly: 296.3780 deg

Mean motion: 14.01069413 rev/day

Decay rate: -7.562e-05 rev/day^2

Epoch rev: 2788

Satellite: MET-2/20

Catalog number: 20826

Epoch time: 91079.82936476

Element set: 114

Inclination: 82.5211 deg

RA of node: 8.1479 deg

Eccentricity: 0.0013947

Arg of perigee: 122.5678 deg

Mean anomaly: 237.6849 deg

Mean motion: 13.83297106 rev/day

Decay rate: 4.59e-06 rev/day^2

Epoch rev: 2399

/EX

SB KEPS @ AMSAT \$ORBS-082.M

Orbital Elements 082.MISC

HR AMSAT ORBITAL ELEMENTS FOR MANNED AND MISCELLANEOUS SATELLITES
FROM N3FKV HEWITT, TX March 23, 1991
TO ALL RADIO AMATEURS BT

Satellite: MIR

Catalog number: 16609

Epoch time: 91080.39609845

Element set: 327

Inclination: 51.6085 deg

RA of node: 12.6629 deg

Eccentricity: 0.0016335

Arg of perigee: 86.8260 deg

Mean anomaly: 273.4468 deg

Mean motion: 15.63683273 rev/day

Decay rate: 8.1391e-04 rev/day^2

Epoch rev: 29141

Satellite: HUBBLE
Catalog number: 20580
Epoch time: 91079.79198155
Element set: 403
Inclination: 28.4698 deg
RA of node: 287.2797 deg
Eccentricity: 0.0005764
Arg of perigee: 120.5920 deg
Mean anomaly: 239.5232 deg
Mean motion: 14.86808872 rev/day
Decay rate: 9.941e-05 rev/day^2
Epoch rev: 4914

/EX

SB KEPS @ AMSAT \$ORBS-082.N
2-Line Orbital Elements 082.AMSAT

HR AMSAT ORBITAL ELEMENTS FOR AMATEUR SATELLITES IN NASA FORMAT
FROM N3FKV HEWITT, TX March 23, 1991

DECODE 2-LINE ELSETS WITH THE FOLLOWING KEY:

1 AAAAAU 00 0 0 BBBB.BBBBBBBB .CCCCCCC 00000-0 00000-0 0 DDDZ
2 AAAAA EEE.EEEE FFF.FFFF GGGGGGG HHH.HHHH III.IIII JJ.JJJJJJJKKKKKZ
KEY: A-CATALOGNUM B-EPOCHTIME C-DECAY D-ELSETNUM E-INCLINATION F-RAAN
G-ECCENTRICITY H-ARGPERIGEE I-MNANOM J-MNMOTION K-ORBITNUM Z-CHECKSUM

TO ALL RADIO AMATEURS BT

A0-10

1 14129U 83 58 B 91079.85001045 -.000000029 00000-0 99999-4 0 6415
2 14129 25.7740 154.7577 6001788 226.7218 64.5707 2.05882404 30430

U0-11

1 14781U 84 21 B 91080.56747138 .00004074 00000-0 74292-3 0 9380
2 14781 97.9105 128.5928 0013355 86.0295 274.2504 14.66481916376608

NOAA-9

1 15427U 84123 A 91078.77320874 .00001158 00000-0 64309-3 0 7145
2 15427 99.1733 90.1381 0014572 319.0243 40.9831 14.12889829322897

MIR

1 16609U 86 17 A 91080.39609845 .00081391 00000-0 84758-3 0 3278
2 16609 51.6085 12.6629 0016335 86.8260 273.4468 15.63683273291418

NOAA-10

1 16969U 86 73 A 91080.86282119 .00001514 00000-0 67517-3 0 5592
2 16969 98.5717 107.2613 0013831 177.1642 182.9618 14.23990851234123

RS-10/11

1 18129U 87 54 A 91080.92254548 .00000423 00000-0 45399-3 0 5608
2 18129 82.9245 123.3498 0013445 70.9300 289.3318 13.72161780187623

MET-2/17

1 18820U 88 5 A 91079.64751892 .00000454 00000-0 39552-3 0 4634
 2 18820 82.5451 130.6980 0015117 270.9102 89.0325 13.84457443158430
 AO-13
 1 19216U 88 51 B 91065.03461838 -.00000020 00000-0 99999-4 0 2406
 2 19216 56.8208 107.0310 7134717 248.7854 25.7533 2.09700788 20862
 MET-3/2
 1 19336U 88 64 A 91079.51407238 .00000049 00000-0 10968-3 0 7149
 2 19336 82.5407 81.9375 0017539 348.1699 11.9013 13.16915477127322
 NOAA-11
 1 19531U 88 89 A 91079.78009085 .00001584 00000-0 88562-3 0 4709
 2 19531 99.0195 33.9638 0011135 221.9738 138.0636 14.12003278127992
 MET-2/18
 1 19851U 89 18 A 91079.83653964 .00000521 00000-0 45821-3 0 4154
 2 19851 82.5227 8.0282 0014161 316.2938 43.7108 13.84086483103830
 MET-3/3
 1 20305U 89 86 A 91075.87769420 .00000043 00000-0 99999-4 0 3266
 2 20305 82.5502 25.6640 0016711 15.4525 344.7104 13.15942304 66811
 UO-14
 1 20437U 90 5 B 91076.22312375 .00001204 00000-0 49156-3 0 3155
 2 20437 98.6755 156.2220 0011872 74.2200 286.0282 14.28968311 59858
 AO-16
 1 20439U 90 5 D 91079.69465718 .00001189 00000-0 48490-3 0 2073
 2 20439 98.6775 159.9469 0012678 66.7370 293.5149 14.29069849 60357
 DO-17
 1 20440U 90 5 E 91076.10931864 .00001269 00000-0 51573-3 0 2073
 2 20440 98.6775 156.4138 0012859 77.3705 282.8914 14.29131967 59849
 WO-18
 1 20441U 90 5 F 91079.23298956 .00001192 00000-0 48479-3 0 2064
 2 20441 98.6746 159.5666 0013290 69.9197 290.3421 14.29201795 60295
 LO-19
 1 20442U 90 5 G 91080.54226241 .00001190 00000-0 48329-3 0 2083
 2 20442 98.6770 160.9193 0013617 64.6497 295.6092 14.29280785 60481
 FO-20
 1 20480U 90 13 B 91069.51316501 .00000031 00000-0 97835-4 0 1895
 2 20480 99.0193 70.4245 0540988 165.0177 196.7681 12.83171893 50905
 HUBBLE
 1 20580U 91079.79198155 .00009941 00000-0 10743-2 0 4036
 2 20580 28.4698 287.2797 0005764 120.5920 239.5232 14.86808872 49143
 MET-2/19
 1 20670U 90 57 A 91079.48890829 .00000188 00000-0 15948-3 0 1618
 2 20670 82.5424 69.3384 0014406 231.0261 128.9618 13.83924402 36735
 FY-1/2
 1 20788U 90 81 A 91080.17189190 -.00007562 00000-0 -50392-2 0 1082
 2 20788 98.9476 115.4877 0015985 63.9031 296.3780 14.01069413 27882
 MET-2/20
 1 20826U 90 86 A 91079.82936476 .00000459 00000-0 40813-3 0 1148
 2 20826 82.5211 8.1479 0013947 122.5678 237.6849 13.83297106 23995
 AO-21

1 21087U 91080.15712736 .000000223 000000-0 22429-3 0 257
2 21087 82.9436 298.8691 0035730 142.0202 218.3483 13.74354520 6935
RS-12/13
1 21089U 91 7 A 91079.71937259 .000000255 000000-0 26067-3 0 274
2 21089 82.9296 169.6785 0029384 162.4720 197.7462 13.73873182 5990
/EX

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Gary W. Sanders (gws@n8emr or ...!osu-cis!n8emr!gws), 72277,1325
N8EMR @ W8CQK (ip addr) 44.70.0.1 [Ohio AMPR address coordinator]
HAM BBS (1200/2400/9600/V.32/PEP/MNP=L5) 614-895-2553
Voice: 614-895-2552 (eves/weekends)

Date: 25 Mar 91 05:32:26 GMT
From: sdd.hp.com!spool.mu.edu!cs.umn.edu!talon.UCS.ORST.EDU!usenet!@ucsd.edu
Subject: Any mods for Icom 27a or 27h 2 meter radio ?
To: info-hams@ucsd.edu

Hello, I am looking for modifications for the Icom 27a radio. My desire is to expand the receive coverage up to 156 MHz so I can monitor there. If you know of any such mods for this rig please let me know. I am not even sure the rig is modifiable, but I'm hoping!

Dean Youngquist youngqd@nyssa.cs.orst.edu
428 NW 9th St. Amateur Radio Operator N7LPE
Corvallis, Oregon 97330 Tel. (503) 753-7646 or 757-0335

Date: 25 Mar 91 01:27:19 GMT
From: wang!tosspot!lee@uunet.uu.net
Subject: Connector needed.
To: info-hams@ucsd.edu

Hi.

Does anyone know of a source of supply of power connectors (small round three pin) for the CU-1099/FRR antenna coupler?

(Just once, I'd like to terminate a power cable for a surplus unit with the correct connector.....)

Please email any replies to me directly.

Thanks,
Lee.

Date: 25 Mar 91 04:23:18 GMT
From: tut.cis.ohio-state.edu!pacific.mps.ohio-state.edu!linac!att!oucsace!
bwhite@ucbvax.berkeley.edu
Subject: Has anybody out there ever fixed a microwave?
To: info-hams@ucsd.edu

In article <1991Mar19.170413.24498@csn.org> chuck@csn.org (Chuck Luciano) writes:
>This is not a 9 volt transistor radio, there are DEADLY voltages, and REAL
>RISKS of exposure to HARMFUL RADIATION involved in working on one of these
>beasts. You could think everything went fine and a year from now wonder why
>you have cancer.

Doubtful. Check out most of the experiments run on microwave radiation.
A friend did a run with X-linked lethal mutations on fruit flies and got
zero results over several generations with various exposures; I checked up
and saw most of the evidence *for* a cancer link was shaky at best and
poor experimentation at worst. ELF fields are another story. In any
case, as long as you get the case back on you shouldn't have a problem;
if you're paranoid, use a microwave sniffer.
As for everything else, just give it the same respect you'd give a TV set
and you'll be fine (not that I'm downgrading the risks, keep in mind you
still have a fairly beefy cap or two there holding a good killing charge.
But if you discharge it -- CORRECTLY I might add -- you'll be fine).

--
| Bill White Internet: bwhite@oucsace.cs.ohiou.edu
|
| VIQUE'S LAW: |
| A man without religion is like a fish |
| without a bicycle. |

Date: 25 Mar 91 06:55:47 GMT
From: news-mail-gateway@ucsd.edu
Subject: MAJOR GEOMAGNETIC STORM INFORMATION UPDATE #1 - 25 MARCH
To: info-hams@ucsd.edu

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INFORMATIONAL MAGNETIC STORM UPDATE

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06:30 UT, 25 March

STORM UPDATE INFORMATION:

The geomagnetic storm continues in progress as of 06:30 UT on 25 March. The middle-latitude magnetic A-index has been adjusted to correspond with the storm start-time, and is now rated at 84. This represents a moderate to high intensity major geomagnetic storm.

Severe middle latitude geomagnetic storming was observed between 20:30 UT and 21:30 UT on 24 March, and again between 02:30 UT and 05:00 UT on 25 March. Major storm levels have been observed since 20:00 UT on 24 March. Storming is expected to continue for the next 6 to 12 hours. We should be just about finished the main phase of the storm. Post-storm activity will likely include sporadic isolated substorming. Localized magnetic activity could be fairly intense until things stabilize later this UT day.

Widespread low-latitude auroral activity is being reported throughout most of the southeast U.S. tonight, despite the phase of the moon. Auroral activity will continue throughout most of the night for North American observers. Storm detensification is expected to occur later this UT day. This is expected to be the last night for low-latitude auroral activity for North American observers. However, future major flaring could cause a recurrence of low-latitude auroral activity this coming week. Watch for future major solar flare alerts and terrestrial impact assessments.

Very intense ionospheric absorption during the afternoon hours over North American middle and northerly middle latitudes produced a heavy HF radio blackout on all HF bands. Practically no communications were possible until after sunset, when ionization detensified. Near blackout conditions were reported at several southern hemisphere locations as well (ex. Australia).

The satellite proton and PCA events have decayed over the past 24 hours. A major solar flare, which occurred at 00:24 UT on 25 March may further enhance the proton levels. If this occurs, the Polar Cap Absorption (PCA) event will likely continue for another 48 hours. If no protons are received, the PCA will likely end later this UT day. This flare has a modest probability for producing a minor geomagnetic and auroral storm. More will be known when additional data arrives regarding this event. For more information, consult the Major Solar Flare Alert for 00:24 UT on 25 March.

Another informational update will be posted near 21:00 UT on 25 March. Alerts and warnings will be updated and/or cancelled then.

The following alerts are IN PROGRESS:

- MAJOR GEOMAGNETIC STORM ALERT
- LOW LATITUDE AURORAL ACTIVITY ALERT
- GEOMAGNETICALLY INDUCED CURRENT (GIC) ALERT
- SATELLITE PROTON EVENT ALERT
- POLAR CAP ABSORPTION EVENT ALERT
- POLAR RADIO SIGNAL BLACKOUT ALERT

The following warnings remain in progress:

- POTENTIAL MAJOR SOLAR FLARE ALERT
- POTENTIAL PROTON FLARE ALERT

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End of Info-Hams Digest
